UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Vincins 22313-1450

NOTICE OF ALLOWANCE AND FEE(S) DUE

78686 7590 Diamond Innovations 6325 Huntley Road Worthington, OH 43229 98/04/2011 EXAMINER

ELEY, TIMOTHY V

ART UNIT PAPER NUMBER

3723

DATE MAILED: 08/04/2011

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONFRMATION NO.

 10/596/710
 06/22/2006
 Kris V. Kumar
 12/8346.3301
 9802

TITLE OF INVENTION: METHOD OF GRINDING A FERROUS ROLL

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	11/04/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

IL PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless correct maintenance fee notifica	ed below or directed otl	ng the Patent, advance of herwise in Block 1, by (rders and notification a) specifying a new co	of maintenance fees rrespondence addre	will be ss; and/o	mailed to the current (b) indicating a sep	t correspondence address as arate "FEE ADDRESS" for
CURRENT CORRESPONE 78686 Diamond Inno	PENCE ADDRESS (Note: Use Bi			papers. Each addition have its own certific:	nal pape ite of ma	g can only be used for ficate cannot be used; r, such as an assignmental illing or transmission. e of Mailing or Trans	or domestic mailings of the for any other accompanying ent or formal drawing, must
6325 Huntley R Worthington, O	oad			hereby certify that States Postal Service addressed to the M	this Feet with su ail Stop	(s) Transmittal is bein flicient postage for fir ISSUE FEE address (1) 273-2885, on the d	g deposited with the United st class mail in an envelope above, or being facsimile
							(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVEN	OR	ATTO	ORNEY DOCKET NO.	CONFIRMATION NO.
10/596,710	06/22/2006		Kris V. Kumar			128346.33301	9802
		ING A FERROUS ROLI					
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE D	JE PREV. PAID ISS	UE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0		\$1810	11/04/2011
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	SS			
ELEY, TI	MOTHY V	3723	451-011000				
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563). Change of correspondence address for Change of Correspondence Address form PTOSB/122) attached. Fee Address indication (or 'Fee Address' Indication form PTOSB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			(2) the name of a s registered attorney 2 registered patent	he names of up to 3 registered patient attorneys 1 cast OR, alternatively, 1 ne name of a single firm (having as a member a 2 tercet attorney or agent) and the names of up to sistered patient attorneys or agents. If no name is 3, no name will be printed.			
	less an assignee is ident th in 37 CFR 3.II. Comp	A TO BE PRINTED ON ified below, no assignee pletion of this form is NO		e patent. If an assi; an assignment.			locument has been filed for
Please check the appropr	riate assignee category or	categories (will not be p	rinted on the patent):	☐ Individual ☐	Corporat	ion or other private gr	oup entity Government
4a. The following fee(s)	are submitted:	4	b. Payment of Fee(s): (Please first reapply	any pre	viously paid issue fee	shown above)
☐ Issue Fee			A check is enclosed.				
☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies			☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).				
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	ns SMALL ENTITY state		- 11			TTTY status. See 37 C	
NOTE: The Issue Fee ar interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accepte tes Patent and Trademark	d from anyone other the Office.	an the applicant; a re	gistered	attorney or agent; or t	he assignee or other party in
Authorized Signature				Date			
Typed or printed name	ıe			Registration	No		
This collection of inform an application. Confider submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 22:	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this bu /irginia 22313-1450. DC 813-1450.	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR 6	on is required to obtain 1.14. This collection is depending upon the i e Chief Information O COMPLETED FORMS	or retain a benefit b estimated to take 1 dividual case. Any ficer, U.S. Patent ar TO THIS ADDRE	the pub 2 minute commen d Trader SS. SEN	lic which is to file (an s to complete, including ts on the amount of timerk Office, U.S. Dep D TO: Commissioner	d by the USPTO to process) ng gathering, preparing, and me you require to complete sartment of Commerce, P.O. for Patents, P.O. Box 1450,

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

APPLICATION NO.	FILING DATE FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/596,710	06/22/2006	Kris V. Kumar	128346.33301	9802	
78686 7590 98/04/2011 Diamond Innovations 6325 Huntley Road			EXAMINER		
			ELEY, TIMOTHY V		
Worthington, OH 4			ART UNIT	PAPER NUMBER	

3723 DATE MAILED: 08/04/2011

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- The information on this form will be treated confidentially to the extent allowed under the Freedom
 of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of
 records may be disclosed to the Department of Justice to determine whether disclosure of these
 records is required by the Freedom of Information Act.
- A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability

Application No.	Applicant(s)			
10/596,710	KUMAR ET AL.			
Examiner	Art Unit			
TIMOTHY V ELEV	2722			

The MAILING DATE of this communication appears on the cover sheet with the correspondence address
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to communications filed May 23, 2011.
- The allowed claim(s) is/are 1,2,4,5,8,10,12-14,18-22,31 and 36.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) \square All b) Some* c) None of the:
 - Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - 3.
 ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08).
- Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit
- of Biological Material
- Notice of Informal Patent Application
- Interview Summary (PTO-413). Paper No./Mail Date
- 7.

 Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9.

 ☐ Other

Application/Control Number: 10/596,710

Art Unit: 3723

REASONS FOR ALLOWANCE

 The following is an examiner's statement of reasons for allowance:

The claims are allowed because the prior art does not teach nor suggest, in a method of grinding a ferrous roll having a rotating roll surface, at least; bringing a rotating wheel into contact with the rotating roll surface and traversing the wheel across an axial roll length of the roll, while maintaining a ratio of axial taper tolerance (TT) to radial wheel wear compensation (WWC) of greater than 10; and grinding the roll surface to a surface roughness Ra of less than 5 micrometer while leaving the roll surface substantially free of feed marks, chatter marks, and surface irregularities; or grinding the roll surface while at least one or both of a grinding wheel rotational speed and a mill roll rotational speed is varied in an amount of +/- 1 to 40% in amplitude, with a period of 1 to 30 seconds; wherein a ratio of TT to WWC is greater than 25.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

 Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY V. ELEY whose telephone number is (571)272-4506. The examiner can normally be reached on M-F. Application/Control Number: 10/596,710
Art Unit: 3723

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TIMOTHY V ELEY/ Primary Examiner, Art Unit 3723